SeaQuest/E906 AEM Report

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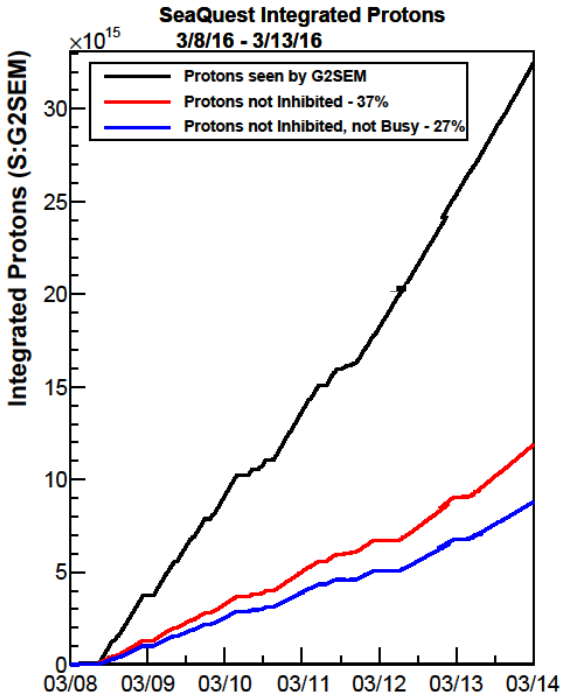
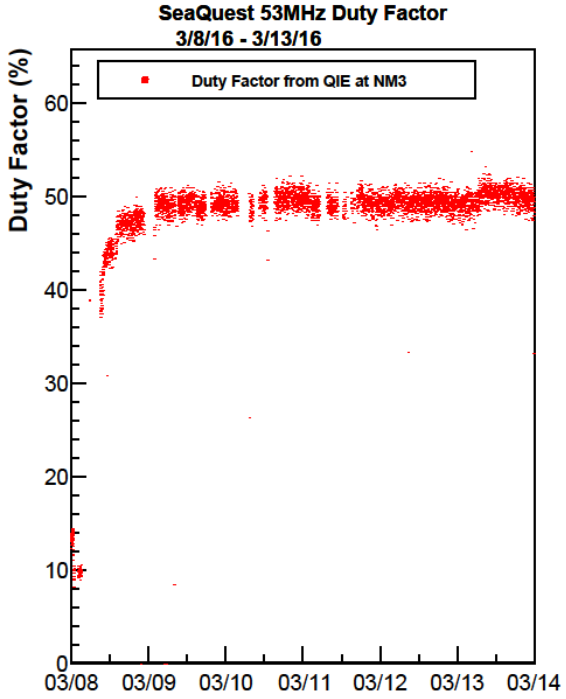
Mar.14 2016

Beam

- Started taking beam on Monday morning. About 8.8E15 live protons taken.
- Duty factor came back to regular value along data taking.



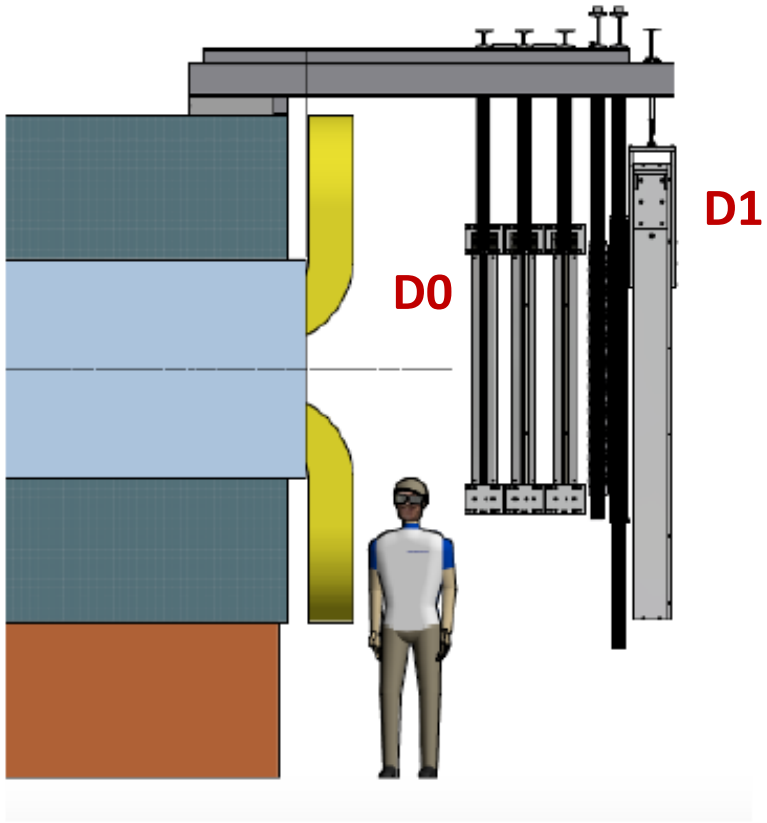


Targets

- Last week, liquid targets vented due to site wide power outage.
- Started data taking with solid targets on Mon. morning.
- Insulation vacuum prepared at Mon. morning, liquid targets cooling down started.
  - **LH2** -- Filling done Tue. afternoon.
  - **LD2** -- Bottle somehow turned off during filling, and an ice ball built up.
    -- Warmed up and restarted the procedure on Wed.
    -- Filling done Fri. morning, started data taking with all targets
- LD2 pressure sensor & LH2 flammable gas sensor replaced

Drift Chambers

- D0
  - 5/6 planes operating normally, 1 plane still lower than nominal HV
  - Gas exhaust line (non-flammable) modified to ensure positive pressure in chambers
- D1
  - Gas purge finished Wednesday afternoon
  - Gain tested, consistent with previous values
  - HV gradually increased, currently at 1630V
- Mapping files modified & checked.
- Needed to change cables and amplifier cards
- D2 and D3 are mostly working fine



Experiment Status

- Hodoscopes & Prop tubes
  - ➢ Two PMT bases were damaged due to a faulty HV module → all replaced
  - ➢ Prop tube noise reduced by replacing grounding copper tape on the amp./disc. card
- DAQ
  - ➢ CPU for trigger supervisor had problems → reconfigured
  - ➢ Bad TDC caused low trigger rate → replaced

Plan

- Re-establish nominal data taking
  - St.0/1 survey done today, back to data taking.
  - Looking into issues with noisy and low-efficiency channels.
  - Tuning chamber HV and threshold.
- **Take good data.**